Remarks

Reconsideration of this Application is respectfully requested. Upon entry of the foregoing amendment, claims 16-20, 39 and 41-52 are pending in the application, with claims 16, 17, 19 and 20 being the independent claims. Claim 40 is sought to be cancelled without prejudice to or disclaimer of the subject matter contained therein. Claims 16-20, 39, 41, 42, 48 and 49 are sought to be amended. New claims 50-52 are sought to be added. The specification has been amended to correct certain typographical errors. Support for these amendments and new claims can be found throughout the specification. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

I. Rejections Under 35 U.S.C. §112, 2nd Paragraph

Claims 16-20, 39-43 and 48-49 are rejected under 35 U.S.C. § 112 second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Office Action, page 2, lines 15-17.

A. Claims 16, 17, 19 and 20

The Examiner asserts the following:

> Claim 16 is drawn to a method of preparing **a** marker molecule. There is no suggestion that one can or should obtain a mixture of two or more compounds. Claim 17, by contrast, mandates that one produce a mixture of two or more compounds. Accordingly, the claim dependence is not

> proper. It is suggested that claim 17 be written in independent form. Similarly, claim 20 is not subgeneric to claim 19.

Office Action, page 3, lines 1-6 (emphasis in original).

Solely to expedite prosecution and not in acquiescence to the rejection, Applicants have amended claims 16, 17, 19 and 20 such that the rejection is now believed to be moot. Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

B. Claim 42

The Examiner asserts that "[c]laim 42 recites the term 'about' in reference to a range, thus rendering the claim indefinite." Office Action, page 3, lines 7-8.

Solely to expedite prosecution and not in acquiescence to the rejection, Applicants have amended claim 42 such that the rejection is now believed to be moot. Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

C. Claim 48

The Examiner asserts the following:

> Claim 48 is dependent on claim 16 (and on 19). As indicated above, claim 16 is drawn to a method of preparing **a** marker molecule. There is no suggestion that one can or should obtain a mixture of two or more compounds. Claim 48 recites that "each" molecule is labeled with the "same" label. Given that the practitioner of the claim 16 invention would produce one and only one compound, how is it possible that one could have anything but all of the molecules having the same label? Perhaps dependence on claim 17 (and 20) is intended.

Office Action, page 3, lines 9-15 (emphasis in original).

Solely to expedite prosecution and not in acquiescence to the rejection, Applicants have amended claim 48 such that the rejection is now believed to be moot. Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

D. Claim 49

The Examiner alleges that in claim 49, "the term 'MBP-95aa' is used, but is not defined." Office Action, page 3, line 16. The Examiner also states that "the term 'TMR' is used, but is not defined." *Id.* at line 22.

Solely to expedite prosecution and not in acquiescence to the rejection, Applicants have amended claim 49 such that the rejection is now believed to be moot. Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

II. Rejections Under 35 U.S.C. §103

A. U.S. Patent 6,326,468 ("the '468 patent")

Claims 16, 17, 19, 20, 39, 40, 42, and 43 are rejected under 35 U.S.C.§ 103 as being unpatentable over U.S. Patent 6,326,468 ("the '468 patent"). Office Action, page 4, lines 18-19. In particular, the Examiner alleges that

> as a practical matter, . . . [labeling a molecule] has little impact, in the absence of any limitations on the term "labeling". . . . The term "labeling" does not require that there be a fluorescent group, or a UV-detectable group, or a radioactive moiety. All that matters is that the presence of the group or substituent in question be detectable by some means that would be known to the analytical chemist of ordinary skill. As it happens, then, all peptides, without exception, are "labeled" molecules, regardless of their structure or sequence.

Office Action, page 4, last line to page 5, line 10.

Solely to expedite prosecution and not in acquiescence to the rejection, Applicants have amended independent claims 16, 17, 19 and 20 such that the claimed methods recite labeling a molecule with a label selected from the group consisting of chromophores, fluorophores and UV absorbing groups, wherein the label is not an amino acid. These limitations are necessarily included in all the dependent claims as well.

Among other requirements, a reference (or combination of references) must teach or suggest every limitation of a claim to render the claim obvious under 35 U.S.C. § 103. *See* M.P.E.P., 8th ed., § 2143.03 (rev. 2, May 2004). Because the '468 patent fails to teach or suggest all of the limitations of the independent claims, this rejection is now believed to be moot. Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

B. U.S. Patent No. 6,307,018 ("the '018 patent")

Claims 16, 39, 40, 42 and 43 are rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,307,018 ("the '018 patent"). Office Action page 6, lines 16-17. As described above, the Examiner alleges that "the term 'labeling' in step (a) of claim 16 is not a meaningful limitation." *Id.* at page 7, lines 2-3.

Solely to expedite prosecution and not in acquiescence to the rejection, Applicants have amended independent claims 16, 17, 19 and 20 such that the claimed methods recite labeling a molecule with a label selected from the group consisting of chromophores, fluorophores and UV absorbing groups, wherein the label is not an amino acid. These limitations are necessarily included in all the dependent claims as well.

Among other requirements, a reference (or combination of references) must teach or suggest every limitation of a claim to render the claim obvious under 35 U.S.C. § 103. *See* M.P.E.P., 8th ed., § 2143.03 (rev. 2, May 2004). Because the '018 patent fails to teach or suggest all of the limitations of the independent claims, this rejection is now believed to be moot. Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

C. U.S. Patent No. 6,476,190 ("the '190 patent")

Claims 16, 39, 40, 42 and 43 are rejected 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,476,190 ("the '190 patent"). Office Action, page 7, lines 5-6. In particular, the Examiner alleges that

> Kent discloses (e.g., figure 1) a ligation procedure in which a C-terminal thioester of a "first" peptide is reacted with a "second" peptide, wherein the second peptide bears an N-terminal bromoacetyl group. The result is a new peptide which itself contains a thioester bond (at the point of ligation).

Office Action, page 7, lines 7-10.

Solely to expedite prosecution and not in acquiescence to the rejection, Applicants have amended independent claims 16, 17, 19 and 20 such that the claimed methods recite that the C_α-thioester and the thiol-containing moiety react to form a peptide bond. These limitations are necessarily included in all the dependent claims as well.

Among other requirements, a reference (or combination of references) must teach or suggest every limitation of a claim to render the claim obvious under 35 U.S.C. § 103. *See* M.P.E.P., 8th ed., § 2143.03 (rev. 2, May 2004). Because the '190 patent fails to teach or suggest all of the limitations of the independent claims, this rejection is now believed to be moot. Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

D. U.S. Patent No. 6,277,985 ("the '985 patent")

Claims 16, 39, 40, 42, and 43 are rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,277,985 ("the '985 patent"). Office Action, page 8, lines 8-9. In particular, the Examiner alleges that

> The amino acid Fmoc-Cys(Acm) is therefore a labeled molecule which "contains a thiol-containing moiety". This protected amino acid was then "ligated" to a peptide bearing a thioester group. Of course, reaction between the thiol-containing moiety and the thioester group does not occur, but as it happens, claim 16 does not require such.

Office Action, page 9, lines 2-6.

Solely to expedite prosecution and not in acquiescence to the rejection, Applicants have amended independent claims 16, 17, 19 and 20 such that the claimed methods recite that the C_α-thioester and the thiol-containing moiety react to form a peptide bond. These limitations are necessarily included in all the dependent claims as well.

Among other requirements, a reference (or combination of references) must teach or suggest every limitation of a claim to render the claim obvious under 35 U.S.C. § 103. *See* M.P.E.P., 8th ed., § 2143.03 (rev. 2, May 2004). Because the '985 patent fails to teach or suggest all of the limitations of the independent claims, this rejection is now believed to be moot. Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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